

10517873

INVENTOR SEARCH

=> d ibib abs hitstr 17 1-2

L7 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:1006677 HCAPLUS Full-text

DOCUMENT NUMBER: 140:24500

TITLE: Cyclohexanedione herbicide composition comprising an organic phosphate adjuvant

INVENTOR(S): Piper, Catherine Julia; Stock, David
; Hall, Gavin John; Sutton, Peter
Bernard

PATENT ASSIGNEE(S): Syngenta Limited, UK

SOURCE: PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003105589	A1	20031224	WO 2003-GB2428	20030604
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2484544	A1	20031224	CA 2003-2484544	20030604
AU 2003232935	A1	20031231	AU 2003-232935	20030604
BR 2003011717	A	20050301	BR 2003-11717	20030604
EP 1515608	A1	20050323	EP 2003-727734	20030604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
CN 1658756	A	20050824	CN 2003-813521	20030604
JP 2005529174	T	20050929	JP 2004-512508	20030604
ZA 2004008510	A	20051013	ZA 2004-8510	20041020
US 2005096226	A1	20050505	US 2004-700	20041201
US 2005202975	A1	20050915	US 2004-517873	20041213
PRIORITY APPLN. INFO.:			GB 2002-13638	A 20020613
			WO 2003-GB2428	W 20030604

OTHER SOURCE(S): MARPAT 140:24500

AB A herbicidal composition comprising a 2-(substituted benzoyl)-1,3-cyclohexanedione, preferably mesotrione, and an organic phosphate, phosphonate or phosphinate adjuvant at a concentration of <0.5% volume/volume when added to a spray tank as a tank mix additive or when co-formulated with a herbicide to produce a spray tank concentration of <0.5% volume/volume, is disclosed.

IT 99165-77-8 104206-80-6 104206-82-8, Mesotrione

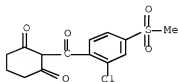
126870-60-8 145665-36-7 634187-29-4

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)

(cyclohexanedione herbicide composition comprising an organic phosphate adjuvant)

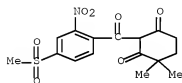
RN 99105-77-8 HCAPLUS

CN 1,3-Cyclohexanedione, 2-[2-chloro-4-(methylsulfonyl)benzoyl]- (9CI) (CA INDEX NAME)



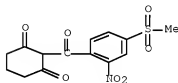
RN 104206-80-6 HCAPLUS

CN 1,3-Cyclohexanedione, 4,4-dimethyl-2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (9CI) (CA INDEX NAME)



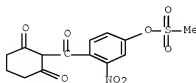
RN 104206-82-8 HCAPLUS

CN 1,3-Cyclohexanedione, 2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (9CI) (CA INDEX NAME)



RN 126070-60-8 HCAPLUS

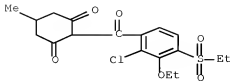
CN 1,3-Cyclohexanedione, 2-[4-[(methylsulfonyl)oxy]-2-nitrobenzoyl]- (9CI) (CA INDEX NAME)



RN 145665-36-7 HCAPLUS

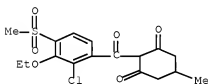
CN 1,3-Cyclohexanedione, 2-[2-chloro-3-ethoxy-4-(ethylsulfonyl)benzoyl]-5-

methyl- (9CI) (CA INDEX NAME)



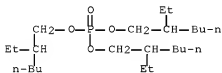
RN 634187-29-4 HCAPLUS

CN 1,3-Cyclohexanedione, 2-[2-chloro-3-ethoxy-4-(methylsulfonyl)benzoyl]-5-methyl- (9CI) (CA INDEX NAME)

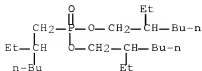
IT 78-42-2, Tri(2-ethylhexyl) phosphate 126-63-6,
Bis(2-ethylhexyl)-2-ethylhexyl phosphonate 126-73-8, Tributyl
phosphate, biological studiesRL: AGR (Agricultural use); MOA (Modifier or additive use); BIOL
(Biological study); USES (Uses)(cyclohexanedione herbicide composition comprising an organic phosphate
adjuvant)

RN 78-42-2 HCAPLUS

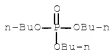
CN Phosphoric acid, tris(2-ethylhexyl) ester (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 126-63-6 HCAPLUS

CN Phosphonic acid, (2-ethylhexyl)-, bis(2-ethylhexyl) ester (6CI, 7CI, 8CI,
9CI) (CA INDEX NAME)

RN 126-73-8 HCAPLUS
 CN Phosphoric acid tributyl ester (8CI, 9CI) (CA INDEX NAME)



IT 14265-44-2, Phosphate, uses 15477-76-6, Phosphonate
 RL: MOA (Modifier or additive use); USES (Uses)
 (organic; cyclohexanedione herbicide composition comprising an organic
 phosphate
 adjuvant)

RN 14265-44-2 HCAPLUS
 CN Phosphate (8CI, 9CI) (CA INDEX NAME)



RN 15477-76-6 HCAPLUS
 CN Phosphonic acid, ion(2-) (8CI, 9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:1006676 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:24499
 TITLE: Safened herbicidal compositions based on chelated
 benzoylcyclohexanedione derivatives
 INVENTOR(S): Piper, Catherine Julia; Stock, David
 ; Hall, Gavin John; Sutton, Peter
 Bernard
 PATENT ASSIGNEE(S): Syngenta Limited, UK
 SOURCE: PCT Int. Appl., 20 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003105588	A1	20031224	WO 2003-GB2423	20030604

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2480898 A1 20031224 CA 2003-2480898 20030604
 AU 2003240070 A1 20031231 AU 2003-240070 20030604
 BR 2003009414 A 20050201 BR 2003-9414 20030604
 EP 1515609 A1 20050323 EP 2003-732684 20030604

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

US 2005202972 A1 20050915 US 2004-517872 20041213

PRIORITY APPLN. INFO.: GB 2002-13654 A 20020613
 WO 2003-GB2423 W 20030604

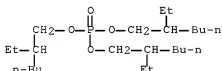
OTHER SOURCE(S): MARPAT 140:24499

AB A novel herbicidal composition comprising a metal chelate of a 2-(substituted benzoyl)-1,3-cyclohexanedione (Markush given) and an organic phosphate, phosphonate, or phosphinate adjuvant shows improved activity with little or no increase in crop damage. Thus, mesotrione copper salt + 0.5% tri-Bu phosphate sprayed at 320 g/ha gave 97% control of Echinochloa crus-galli with no damage to two maize varieties.

IT 78-42-2D, Tri(2-ethylhexyl) phosphate, mixture with mesotrione copper salt 126-63-6D, Bis(2-ethylhexyl)2-ethylhexyl phosphonate, mixture with mesotrione copper salt 126-73-8D, Tributyl phosphate, mixture with mesotrione copper salt
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
 (safened herbicidal composition)

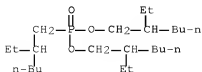
RN 78-42-2 HCAPLUS

CN Phosphoric acid, tris(2-ethylhexyl) ester (7CI, 8CI, 9CI) (CA INDEX NAME)



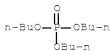
RN 126-63-6 HCAPLUS

CN Phosphonic acid, (2-ethylhexyl)-, bis(2-ethylhexyl) ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 126-73-8 HCAPLUS

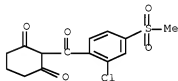
CN Phosphoric acid tributyl ester (8CI, 9CI) (CA INDEX NAME)



IT 99105-77-8D, metal chelates, mixts. with phosphates, phosphonates, and phosphinates 104206-80-6D, metal chelates, mixts. with phosphates, phosphonates, and phosphinates 104206-82-8D, metal chelates, mixts. with phosphates, phosphonates, and phosphinates 126070-60-8D, metal chelates, mixts. with phosphates, phosphonates, and phosphinates 145665-36-7D, metal chelates, mixts. with phosphates, phosphonates, and phosphinates 634187-29-4D, metal chelates, mixts. with phosphates, phosphonates, and phosphinates
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
 (safened herbicidal compns.)

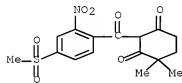
RN 99105-77-8 HCAPLUS

CN 1,3-Cyclohexanedione, 2-[2-chloro-4-(methylsulfonyl)benzoyl]- (9CI) (CA INDEX NAME)



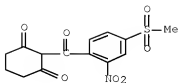
RN 104206-80-6 HCAPLUS

CN 1,3-Cyclohexanedione, 4,4-dimethyl-2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (9CI) (CA INDEX NAME)



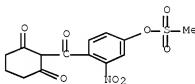
RN 104206-82-8 HCAPLUS

CN 1,3-Cyclohexanedione, 2-[4-(methylsulfonyl)-2-nitrobenzoyl]- (9CI) (CA INDEX NAME)



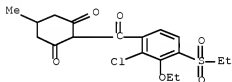
RN 126070-60-8 HCAPLUS

CN 1,3-Cyclohexanedione, 2-[4-[(methylsulfonyl)oxy]-2-nitrobenzoyl]- (9CI)
(CA INDEX NAME)



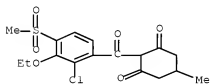
RN 145665-36-7 HCAPLUS

CN 1,3-Cyclohexanedione, 2-[2-chloro-3-ethoxy-4-(ethylsulfonyl)benzoyl]-5-methyl- (9CI) (CA INDEX NAME)



RN 634187-29-4 HCAPLUS

CN 1,3-Cyclohexanedione, 2-[2-chloro-3-ethoxy-4-(methylsulfonyl)benzoyl]-5-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

SEARCH IN REGISTRY, CAPLUS, USPATFULL

=> => d que stat l16

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L8      1 SEA FILE=REGISTRY ABB=ON  104206-82-8/RN
L9      212 SEA FILE=HCAPLUS ABB=ON  L8
L10     185 SEA FILE=HCAPLUS ABB=ON  L9 AND ?HERBICID?
L11     77 SEA FILE=HCAPLUS ABB=ON  L10 AND ?WEED?
L13     9 SEA FILE=HCAPLUS ABB=ON  L11 AND ?APPL?(4A)?WEED?
L14     7 SEA FILE=HCAPLUS ABB=ON  L13 AND (PRD<20041213 OR PD<20041213)
L15     23 SEA FILE=USPATFULL ABB=ON  L13 AND (PRD<20041213 OR PD<20041213)
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L16     30 DUP REMOV L14 L15 (0 DUPLICATES REMOVED)

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=> d ibib abs l16 1-30

L16 ANSWER 1 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2006:282041 USPATFULL Full-text
 TITLE: Herbicidal compositions
 INVENTOR(S): Pallett, Ken, Konigstein, GERMANY, FEDERAL REPUBLIC OF
 Slater, Ashley, Essex, UNITED KINGDOM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006240984	A1	20061026
APPLICATION INFO.:	US 2006-475812	A1	20060627 (11)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2002-49731, filed on 15 Feb 2002, ABANDONED A 371 of International Ser. No. WO 2000-EP9339, filed on 8 Sep 2000		

	NUMBER	DATE	
PRIORITY INFORMATION:	GB 1999-21220	19990908	<--
	GB 2000-12090	20000519	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	FROMMER LAWRENCE & HAUG, 745 FIFTH AVENUE- 10TH FL., NEW YORK, NY, 10151, US		
NUMBER OF CLAIMS:	33		
EXEMPLARY CLAIM:	1-22		
LINE COUNT:	1549		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a method of reducing phytotoxicity to crops (especially maize) caused by a herbicidal benzoylisoxazole and/or dione derivative of formula (I) or an agriculturally acceptable salt or metal complex thereof; which method comprises applying to the locus of the crop an antidotally effective amount of an antidote compound, optionally with a partner herbicide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 2 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2006:248185 USPATFULL Full-text
 TITLE: Method of controlling weeds
 INVENTOR(S): Cornes, Derek, Basel, SWITZERLAND
 Johnson, Michael Donald, Greensboro, NC, UNITED STATES

NUMBER	KIND	DATE
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PATENT INFORMATION:	US 2006211578	A1	20060921	
APPLICATION INFO.:	US 2004-560097	A1	20040607	(10)
	WO 2004-GB2409		20040607	
			20060403	PCT 371 date

	NUMBER	DATE	
PRIORITY INFORMATION:	GB 2003-14190	20030618	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	SYNGENTA CROP PROTECTION , INC., PATENT AND TRADEMARK DEPARTMENT, 410 SWING ROAD, GREENSBORO, NC, 27409, US		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1		
LINE COUNT:	559		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for the season-long control of unwanted vegetation, said method comprising a single application of a herbicidal combination comprising a 2-(substituted benzoyl)-1,3-cyclohexanedione or metal chelate thereof, glyphosate or a salt thereof and an acetamide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 3 OF 30 USPATFULL on STN

ACCESSION NUMBER:	2005:234036	USPATFULL	<u>Full-text</u>
TITLE:	Compositions comprising a cyclohexanedione herbicide and an adjuvant		
INVENTOR(S):	Stock, David, Berkshire, UNITED KINGDOM		
	Piper, Catherine Julia, Berkshire, UNITED KINGDOM		
	Hall, Gavin John, Berkshire, UNITED KINGDOM		
	Sutton, Peter Bernard, Berkshire, UNITED KINGDOM		

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005202975	A1	20050915	
APPLICATION INFO.:	US 2003-517873	A1	20030604	(10)
	WO 2003-GB2428		20030604	
			20041213	PCT 371 date

	NUMBER	DATE	
PRIORITY INFORMATION:	GB 2002-13638	20020613	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	SYNGENTA CROP PROTECTION , INC., PATENT AND TRADEMARK DEPARTMENT, 410 SWING ROAD, GREENSBORO, NC, 27409, US		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
LINE COUNT:	550		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel herbicidal composition comprising a 2-(substituted benzoyl)-1,3-cyclohexanedione and an organic phosphate, phosphonate or phosphinate adjuvant at a concentration of less than 0.5% v/v when added to a spray tank as a tank mix additive or when co-formulated with a herbicide to produce a spray tank concentration of less than 0.5% v/v is disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 4 OF 30 USPATFULL on STN
 ACCESSION NUMBER: 2005:234033 USPATFULL Full-text
 TITLE: Herbicidal composition
 INVENTOR(S): Piper, Catherine Julia, Berkshire, UNITED KINGDOM
 Stock, David, Berkshire, UNITED KINGDOM
 Hall, Gavin John, Berkshire, UNITED KINGDOM
 Sutton, Peter Bernard, Berkshire, UNITED KINGDOM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005202972	A1	20050915
APPLICATION INFO.:	US 2003-517872	A1	20030604 (10)
	WO 2003-GB2423		20030604
			20041213 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2002-13654	20020613 <--
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SYNGENTA CROP PROTECTION , INC., PATENT AND TRADEMARK DEPARTMENT, 410 SWING ROAD, GREENSBORO, NC, 27409, US	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
LINE COUNT:	593	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	A novel herbicidal composition comprising a metal chelate of a 2- (substituted benzoyl)-1,3-cyclohexanedione and an organic phosphate, phosphonate or phosphinate adjuvant is disclosed.	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 5 OF 30 USPATFULL on STN
 ACCESSION NUMBER: 2005:112142 USPATFULL Full-text
 TITLE: Composition comprising a cyclohexanedione
 herbicide and an adjuvant
 INVENTOR(S): Stock, David, Bracknell, UNITED KINGDOM
 Piper, Catherine Julia, Bracknell, UNITED KINGDOM
 Hall, Gavin John, Bracknell, UNITED KINGDOM
 Sutton, Peter Bernard, Bracknell, UNITED KINGDOM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005096226	A1	20050505
APPLICATION INFO.:	US 2004-700	A1	20041201 (11)
RELATED APPLN. INFO.:	Continuation of Ser. No. WO 2003-GB2428, filed on 4 Jun 2003, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2002-13638	20020613 <--
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SYNGENTA CROP PROTECTION , INC., PATENT AND TRADEMARK DEPARTMENT, 410 SWING ROAD, GREENSBORO, NC, 27409, US	
NUMBER OF CLAIMS:	31	
EXEMPLARY CLAIM:	1	
LINE COUNT:	580	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel herbicidal composition comprising a 2-(substituted benzoyl)-1,3-cyclohexanedione and an organic phosphate, phosphonate or phosphinate adjuvant at a concentration of less than 0.5% v/v when added to a spray tank as a tank mix additive or when co-formulated with a herbicide to produce a spray tank concentration of less than 0.5% v/v is disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 6 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2005:105459 USPATFULL Full-text

TITLE: Herbicides made from substituted aryl ketones

INVENTOR(S): Feucht, Dieter, Monheim, GERMANY, FEDERAL REPUBLIC OF

Dahmen, Peter, Neuss, GERMANY, FEDERAL REPUBLIC OF

Drewes, Mark Wilhelm, Langenfeld, GERMANY, FEDERAL

REPUBLIC OF

Pontzen, Rolf, Leichlingen, GERMANY, FEDERAL REPUBLIC

OF

Hoischen, Dorothee, Dusseldorf, GERMANY, FEDERAL

REPUBLIC OF

Muller, Klaus-Helmut, Dusseldorf, GERMANY, FEDERAL

REPUBLIC OF

Schwarz, Hans-Georg, Langenfeld, GERMANY, FEDERAL

REPUBLIC OF

Herrmann, Stefan, Langenfeld, GERMANY, FEDERAL REPUBLIC

OF

Kather, Kristian, Langenfeld, GERMANY, FEDERAL REPUBLIC

OF

Schallner, Otto, Monheim, GERMANY, FEDERAL REPUBLIC OF

Goto, Toshio, Tochigi, JAPAN

Shirakura, Shinichi, Tochigi, JAPAN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005090397	A1	20050428
APPLICATION INFO.:	US 2003-488029	A1	20020819 (10)
	WO 2002-EP9236		20020819

	NUMBER	DATE	
PRIORITY INFORMATION:	DE 2001-10142334	20010830	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	BAYER CROPSCIENCE LP, Patent Department, 100 BAYER ROAD, PITTSBURGH, PA, 15205-9741, US		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1-9		
LINE COUNT:	4119		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The application relates to compositions having a) at least one of the compounds of the formula (I) ##STR1## in which A, R.sup.1, R.sup.2, R.sup.3 and R.sup.4 have the meaning given in the disclosure and b) known herbicides, as stated in the disclosure, and/or c) known safeners, as stated in the disclosure, and to their use for controlling undesirable vegetation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 7 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2005:44193 USPATFULL Full-text
 TITLE: 3-phenoxy-4-pyridazinol derivatives and
 herbicide composition containing the same
 INVENTOR(S): Tsukamoto, Yoshihisa, Shiga, JAPAN
 Komai, Hiroyuki, Shiga, JAPAN
 Kadotani, Junji, Shiga, JAPAN
 Koi, Kiyoshi, Shiga, JAPAN
 Mio, Shigeru, Shiga, JAPAN
 Takeshiba, Hideo, Tokyo, JAPAN
 PATENT ASSIGNEE(S): Sankyo Agro Company, Limited, Tokyo, JAPAN, 113-0033
 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005037925	A1	20050217
APPLICATION INFO.:	US 2004-487013	A1	20040227 (10)
	WO 2002-JP8278		20020814

	NUMBER	DATE	
PRIORITY INFORMATION:	JP 2001-248014	20010817	<--
	JP 2002-82219	20020325	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	FRISHAUF, HOLTZ, GOODMAN & CHICK, PC, 767 THIRD AVENUE, 25TH FLOOR, NEW YORK, NY, 10017-2023		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1		
LINE COUNT:	21477		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	A compound represented by the formula: ##STR1##		

[wherein R.sup.1 represents a hydrogen atom, a halogen, atom, alkyl group, etc.,

R.sup.2 represents a hydrogen atom, a halogen atom, alkyl group, etc.,

R.sup.3, R.sup.4, R.sup.5, R.sup.6 and R.sup.7 each independently represent a hydrogen atom, a halogen atom, a substitutable alkyl group, a substitutable alkenyl group, alkynyl group, a substitutable cycloalkyl group, etc., or R.sup.3, R.sup.4, R.sup.5, R.sup.6 and R.sup.7 may form a ring which may be substituted, which is formed by the adjacent two of them with carbon atoms to which the respective substituents are bonded,

m and n each independently represent 0 or 1.] a salt thereof, an ester derivative thereof and an agricultural chemical containing the same as an effective ingredient, and a herbicidal composition containing the compound and a second herbicidally active compound as effective ingredients.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 8 OF 30 USPATFULL on STN
 ACCESSION NUMBER: 2005:114042 USPATFULL Full-text
 TITLE: Mesotrione formulations
 INVENTOR(S): Wichert, Rex Alan, Greensboro, NC, UNITED STATES

PATENT ASSIGNEE(S): Beckett, Thomas Homer, Greensboro, NC, UNITED STATES
 Syngenta Crop Protection, Inc., Greensboro, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6890889	B1	20050510	
	WO 2002001982		20030314	<--
APPLICATION INFO.:	US 2003-363014		20010904	(10)
	WO 2001-IB1894		20010904	
			20030825	PCT 371 date

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-231796P	20000911 (60)	<--
	US 2003-231007P	20000908 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Clardy, S. Mark		
LEGAL REPRESENTATIVE:	Allen, Rose M.		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)		
LINE COUNT:	320		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Herbicidal formulations comprising (A) mesotrione (2-[4-methylsulfonyl-2-nitrobenzoyl]-1,3-cyclohexanedione). (B) about 0.3 to about 2.5 percent of crop oil concentrate or about 0.3 to about 2.5 percent of methylated seed oil, on a volume to volume basis, based on the total of (A), (B), (C) and (D). (C) about 0.5 to about 5% of a urea ammonium nitrate on a volume to volume basis, based on the total of (A), (B), (C) and (D), or about 0.5 to 5% based on dry weight, of ammonium sulphate fertilizer, based on the total weight of (A), (B), (C) and (D), and (D) a diluent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 9 OF 30 USPATFULL on SIN

ACCESSION NUMBER: 2004:261818 USPATFULL Full-text

TITLE: Weed control process

INVENTOR(S): Sutton, Peter Bernard, Bracknell, UNITED KINGDOM
 Wichert, Rex Alan, Greensboro, NC, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004204319	A1	20041014	<--
	US 7071147	B2	20060704	
APPLICATION INFO.:	US 2004-483582	A1	20040109	(10)
	WO 2002-GB3119		20020708	

	NUMBER	DATE	
PRIORITY INFORMATION:	GB 2001-16956	20010711	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	SYNGENTA CROP PROTECTION, INC., PATENT AND TRADEMARK DEPARTMENT, 410 SWING ROAD, GREENSBORO, NC, 27409		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
LINE COUNT:	346		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process of controlling triazine-tolerant weeds by the application of a combination of mesotrione and a triazine to the locus of said weeds is disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 10 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2004:233716 USPATFULL Full-text
 TITLE: Synergistic herbicidal compositions
 comprising mesotrione
 INVENTOR(S): Cornes, Derek, Basel, SWITZERLAND

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004180790	A1	20040916	<--
APPLICATION INFO.:	US 2004-479479	A1	20040504	(10)
	WO 2002-GB2534		20020606	

	NUMBER	DATE	
PRIORITY INFORMATION:	GB 2001-14198	20010611	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	SYNGENTA CROP PROTECTION, INC., PATENT AND TRADEMARK DEPARTMENT, 410 SWING ROAD, GREENSBORO, NC, 27409		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
LINE COUNT:	347		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a synergistic herbicidal composition comprising; (A) mesotrione, and: (B) a second herbicide selected form; (B1) triazines (B2) triazolinones (B3) triazinones (B4) imidazolinones (B5) dicamba (B6) flumetsulam (B7) trifloxysulfuron (B8) tritosulfuron (B9) triasulfuron (B10) pyriftalid (B11) prosulfocarb (B12) pretilachlor (B13) cinosulfuron, or their herbicidally effective salts. A method of controlling th growth of undesirable vegetation, particularly in crops, using this synergistic composition is also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 11 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2004:95237 USPATFULL Full-text
 TITLE: Herbicidal compositions
 INVENTOR(S): Pallett, Ken, Konigstein, GERMANY, FEDERAL REPUBLIC OF
 Slater, Ashley, Essex, UNITED KINGDOM

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004072691	A1	20040415	<--
	US 6878675	B2	20050412	
APPLICATION INFO.:	US 2003-380362	A1	20031002	(10)
	WO 2001-EP10693		20010917	

	NUMBER	DATE	
PRIORITY INFORMATION:	GB 2000-22833	20000918	<--
DOCUMENT TYPE:	Utility		

FILE SEGMENT: APPLICATION
 LEGAL REPRESENTATIVE: William E McShane, Connolly Bove Lodge & Hutz, P O Box
 2207, Wilmington, DE, 19899-2207
 NUMBER OF CLAIMS: 18
 EXEMPLARY CLAIM: 1
 LINE COUNT: 238
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a composition comprising (a) 2-(2'-nitro-4'-methylsulfonylbenzoyl)-1,3-cyclohexanedione, or an agriculturally acceptable salt or metal complex thereof; and (b) N-isopropyl-(5-trifluoromethyl-1,3,4-thiadiazol-2-yl)-4-(4'-fluoro-oxycetanilide); and their use as herbicides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 12 OF 30 USPATFULL on STN
 ACCESSION NUMBER: 2004:70556 USPATFULL Full-text
 TITLE: Herbicidal compositions
 INVENTOR(S): Pallett, Ken, Konigstein, GERMANY, FEDERAL REPUBLIC OF
 Slater, Ashley, Ongar Essex, UNITED KINGDOM

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004053784	A1	20040318	<--
	US 6887829	B2	20050503	
APPLICATION INFO.:	US 2003-380353	A1	20031002	(10)
	WO 2001-EP10695		20010917	

	NUMBER	DATE	
PRIORITY INFORMATION:	GB 2000-22932	20000918	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	CONNOLLY BOVE LODGE & HUTZ, LLP, P O BOX 2207, WILMINGTON, DE, 19899		
NUMBER OF CLAIMS:	14		
EXEMPLARY CLAIM:	1		
LINE COUNT:	369		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a method for controlling the growth of weeds at a locus which comprises applying to said locus: (a) 2-(2'-nitro-4'-methylsulfonylbenzoyl)-1,3-cyclohexanedione, or an agriculturally acceptable salt or metal complex thereof; and (b) a triazine herbicide with the exclusion of atrazine; and their use as herbicides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 13 OF 30 USPATFULL on STN
 ACCESSION NUMBER: 2004:64227 USPATFULL Full-text
 TITLE: Herbicidal composition
 INVENTOR(S): Cornes, Derek, Basel, SWITZERLAND

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004048746	A1	20040311	<--
	US 6924250	B2	20050802	
APPLICATION INFO.:	US 2003-658697	A1	20030909	(10)
RELATED APPLN. INFO.:	Continuation of Ser. No. WO 2002-GB2534, filed on 6 Jun 2002, UNKNOWN			

	NUMBER	DATE	
	-----	-----	
PRIORITY INFORMATION:	GB 2001-14198	20010611	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	SYNGENTA CROP PROTECTION , INC., PATENT AND TRADEMARK DEPARTMENT, 410 SWING ROAD, GREENSBORO, NC, 27409		

NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
LINE COUNT: 346

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a synergistic herbicidal composition comprising; (A) mesotrione, and: (B) a second herbicide selected from; (B1) triazines (B2) triazolinones (B3) triazinones (B4) imidazolinones (B5) dicamba (B6) flumetsulam (B7) trifloxysulfuron (B8) tritosulfuron (B9) triasulfuron (B10) pyriftalid (B11) prosulfocarb (B12) pretilachlor (B 13) cinosulfuron, or their herbicidally effective salts.

A method of controlling the growth of undesirable vegetation, particularly in crops, using this synergistic composition is also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 14 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:937585 HCAPLUS Full-text

DOCUMENT NUMBER: 142:129012

TITLE: Photosynthetic and growth responses of Zea mays L and four weed species following post-emergence treatments with mesotrione and atrazine
Creech, J. Earl; Monaco, Thomas A.; Evans, John O.
CORPORATE SOURCE: Plants, Soils, and Biometeorology Department, Utah State University, Logan, UT, 84322-4820, USA
SOURCE: Pest Management Science (2004), 60(11), 1079-1084

CODEN: PMSCF; ISSN: 1526-498X

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Photosynthesis and growth of Zea mays L (corn) were compared with four weed species, Setaria viridis (L) Beauv (green foxtail), Echinochloa crus-galli (L) Beauv (barnyardgrass), Abutilon theophrasti Medic (velvetleaf), and Amaranthus retroflexus L (redroot pigweed), following foliar applications with atrazine, mesotrione, or a combination of atrazine and mesotrione in two greenhouse expts. Plant responses to the three herbicide treatments were compared with responses of untreated plants (control). Photosynthesis on day 14 and dry mass of Z mays was not reduced by any of the herbicide treatments. Photosynthesis and dry mass of E crus-galli, A retroflexus and A theophrasti were significantly reduced by mesotrione and atrazine alone and in combination. Photosynthesis on day 14 and dry mass of large S. viridis plants were not suppressed by either herbicide applied alone. The mesotrione plus atrazine treatment was the most effective treatment for grass weed control because plants did not regain photosynthetic capacity and had significantly lower dry mass. Shoot dry mass of broadleaf weeds was significantly reduced by all three herbicide treatments, except for A retroflexus treated with mesotrione alone.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 15 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:57827 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:102378
 TITLE: Control of triazine-tolerant weeds by a combination of mesotrione and a triazine
 INVENTOR(S): Sutton, Peter Bernard; Wichert, Rex Alan
 PATENT ASSIGNEE(S): Syngenta Limited, UK
 SOURCE: PCT Int. Appl., 14 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003005820	A1	20030123	WO 2002-GB3119	20020708 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2447760	A1	20030123	CA 2002-2447760	20020708 <--
NZ 529692	A	20031219	NZ 2002-529692	20020708 <--
EP 1408756	A1	20040421	EP 2002-751300	20020708 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
SI 21295	A	20040430	SI 2002-20019	20020708 <--
BR 2002010396	A	20040810	BR 2002-10396	20020708 <--
JP 2004534091	T	20041111	JP 2003-511635	20020708 <--
HU 200401306	A2	20041129	HU 2004-1306	20020708 <--
CN 1620249	A	20050525	CN 2002-813858	20020708 <--
RU 2287272	C2	20061120	RU 2004-103861	20020708 <--
IN 2003MN01077	A	20050429	IN 2003-MN1077	20031124 <--
ZA 2004000139	A	20041014	ZA 2004-139	20040108 <--
US 2004204319	A1	20041014	US 2004-483582	20040109 <--
US 7071147	B2	20060704		
PRIORITY APPLN. INFO.:			GB 2001-16956	A 20010711 <--
			WO 2002-GB3119	W 20020708 <--
AB	Triazine-tolerant weeds are controlled by the application of a combination of mesotrione and a triazine to the locus of said weeds either as a mixture or sequentially.			
REFERENCE COUNT:	4	THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L16 ANSWER 16 OF 30 USPATFULL on STN
 ACCESSION NUMBER: 2003:181379 USPATFULL Full-text
 TITLE: Adjuvant blend for enhancing efficacy of pesticides
 INVENTOR(S): Woznica, Zenon J., Fargo, ND, UNITED STATES
 Messersmith, Calvin, Fargo, ND, UNITED STATES
 Nalewaja, John, Fargo, ND, UNITED STATES
 PATENT ASSIGNEE(S): North Dakota State University (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION:	US 2003125211	A1	20030703	<--
	US 6642178	B2	20031104	
APPLICATION INFO.:	US 2001-992475	A1	20011114	(9)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	APPLICATION			
LEGAL REPRESENTATIVE:	FITCH EVEN TABIN AND FLANNERY, 120 SOUTH LA SALLE STREET, SUITE 1600, CHICAGO, IL, 60603-3406			
NUMBER OF CLAIMS:	60			
EXEMPLARY CLAIM:	1			
LINE COUNT:	931			
CAS INDEXING IS AVAILABLE FOR THIS PATENT.				

AB The present invention relates to a homogenous adjuvant blend for use in spray carriers containing herbicides. The homogenous adjuvant blend includes a nitrogen fertilizer, a pH adjuster, modified vegetable oil, and a blend of nonionic surfactants having high, intermediate, and low hydrophilic-lipophilic balance (HLB).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 17 OF 30 USPATFULL on STN
 ACCESSION NUMBER: 2003:153279 USPATFULL Full-text
 TITLE: High-pH oil based adjuvant blend for enhancing efficacy of pesticides
 INVENTOR(S): Woznica, Zenon J., Fargo, ND, UNITED STATES
 Messersmith, Calvin, Fargo, ND, UNITED STATES
 Nalewaja, John, Fargo, ND, UNITED STATES
 PATENT ASSIGNEE(S): North Dakota State University (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003104947	A1	20030605	<--
	US 6689720	B2	20040210	
APPLICATION INFO.:	US 2001-34841	A1	20011227	(10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-992475, filed on 14 Nov 2001, PENDING			
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	APPLICATION			
LEGAL REPRESENTATIVE:	FITCH EVEN TABIN AND FLANNERY, 120 SOUTH LA SALLE STREET, SUITE 1600, CHICAGO, IL, 60603-3406			
NUMBER OF CLAIMS:	31			
EXEMPLARY CLAIM:	1			
LINE COUNT:	722			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a homogenous adjuvant blend for use in spray carriers containing herbicides. The homogenous adjuvant blend includes an oil, a pH adjuster, and nonionic surfactants.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 18 OF 30 USPATFULL on STN
 ACCESSION NUMBER: 2003:321499 USPATFULL Full-text
 TITLE: Herbicidal compositions comprising picolinafen
 INVENTOR(S): Hewett, Richard Henry, Ongar, UNITED KINGDOM
 PATENT ASSIGNEE(S): Aventis CropScience S.A., Lyons, FRANCE (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6660692	B1	20031209	<--
	WO 2000078147		20001228	
APPLICATION INFO.:	US 2001-18395		20011213	(10)
	WO 2000-EP6255		20000616	

	NUMBER	DATE	
PRIORITY INFORMATION:	GB 1999-14213	19990617	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Clardy, S. Mark		
LEGAL REPRESENTATIVE:	Frommer Lawrence & Haug LLP		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)		
LINE COUNT:	578		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides a method for controlling the growth of weeds (i.e. undesired vegetation) at a locus which comprises applying to the locus a herbicidally effective amount of: (a) picolinfen, a phenoxypicolinamide derivative of formula (I); and (b) a partner herbicide, selected from isoxazole, dione, urea and hydroxybenzonitrile herbicide. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:220304 HCAPLUS Full-text

DOCUMENT NUMBER: 136:243300

TITLE: Herbicidal compositions

INVENTOR(S): Pallett, Ken; Slater, Ashley

PATENT ASSIGNEE(S): Aventis CropScience SA, Fr.

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002021920	A1	20020321	WO 2001-EP10695	20010917 <--
W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NO, NZ, PH, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN, YU, ZA				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2422183	A1	20020321	CA 2001-2422183	20010917 <--
AU 2002012245	A5	20020326	AU 2002-12245	20010917 <--
EP 1322159	A1	20030702	EP 2001-980391	20010917 <--
EP 1322159	B1	20060809		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001013905	A	20030722	BR 2001-13905	20010917 <--
HU 200301821	A2	20030828	HU 2003-1821	20010917 <--
AT 335401	T	20060915	AT 2001-980391	20010917 <--

ZA 2003001849 A 20040420 ZA 2003-1849 20030306 <--
 US 2004053784 A1 20040318 US 2003-380353 20031002 <--
 US 6887829 B2 20050503
 PRIORITY APPLN. INFO.: GB 2000-22932 A 20000918 <--
 WO 2001-EP10695 W 20010917 <--

OTHER SOURCE(S): MARPAT 136:243300

AB The invention relates to a method for controlling the growth of weeds by applying 2-(2'-nitro-4'-methylsulfonylbenzoyl)-1,3-cyclohexanedione, or an agriculturally acceptable salt or metal complex thereof in combination with a triazine herbicide with the exclusion of atrazine.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:220303 HCAPLUS Full-text

DOCUMENT NUMBER: 136:243299

TITLE: Herbicidal compositions

INVENTOR(S): Pallett, Ken; Slater, Ashley

PATENT ASSIGNEE(S): Aventis CropScience SA, Fr.

SOURCE: PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002021919	A1	20020321	WO 2001-EP10692	20010917 <--
W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EC, EE, GE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NO, NZ, PH, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN, YU, ZA				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 200213920	A	20020326	AU 2002-13920	20010917 <--
BR 2001013920	A	20030729	BR 2001-13920	20010917 <--
EP 1331849	A1	20030806	EP 2001-982297	20010917 <--
EP 1331849	B1	20061206		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
ZA 2003001847	A	20040419	ZA 2003-1847	20030306 <--
IN 2003CN00378	A	20050408	IN 2003-CN378	20030311 <--
US 2004053785	A1	20040318	US 2003-380297	20031002 <--
US 6835694	B2	20041228		

PRIORITY APPLN. INFO.: GB 2000-22835 A 20000918 <--
 WO 2001-EP10692 W 20010917 <--

AB A method for controlling the growth of weeds comprises applying a urea herbicide and 2-(2'-nitro-4'-methylsulfonylbenzoyl)-1,3-cyclohexanedione or a salt or metal complex thereof.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 21 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2002:106226 USPATFULL Full-text

TITLE: Herbicidal mixtures

INVENTOR(S): Baltruschat, Helmut Siegfried, Schweppenhausen, GERMANY, FEDERAL REPUBLIC OF

Brandt, Astrid, Mainz, GERMANY, FEDERAL REPUBLIC OF

PATENT ASSIGNEE(S): Intellectual Property Department, Ludwigshafen,
GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002055435	A1	20020509	<--
	US 6683027	B2	20040127	
APPLICATION INFO.:	US 2001-938370	A1	20010824	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-228317P	20000825 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	BASF Corporation, Intellectual Property Department, P.O. Box 400, Princeton, NJ, 08543-0400		
NUMBER OF CLAIMS:	23		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1976		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a herbicidal composition comprising a herbicidally acceptable carrier and/or surface active agent and, as active ingredient, a synergistically effective amount of

(1) at least one compound of formula I ##STR1##

in which R.sup.1, R.sup.2, A, m and n are as defined in claim 1; and

(2) at least one additional herbicidal compound, which is active against broad-leaved weeds and/or annual grasses; which provides a synergistic effect against a broad spectrum of weed species, e.g., in cereal crops. The invention also provides a method for controlling weeds by applying a synergistically effective amount of a compound (1) and a compound (2) to a locus.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:517515 HCAPLUS Full-text

DOCUMENT NUMBER: 137:89758

TITLE: Effect of postemergence application rate and timing of mesotrione on corn (Zea mays) response and weed control

AUTHOR(S): Johnson, Bradley C.; Young, Bryan G.; Matthews, Joseph L.

CORPORATE SOURCE: Department of Plant, Soil and General Agriculture,
Southern Illinois University, Carbondale, IL,
62901-4415, USA

SOURCE: Weed Technology (2002), 16(2), 414-420

CODEN: WETEE9; ISSN: 0890-037X

PUBLISHER: Weed Science Society of America

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Field expts. were conducted in 1999 and 2000 to determine the influence of mesotrione postemergence application rate, application timing, and addition of atrazine on corn injury, weed control, and corn grain yield. Corn injury in

the form of leaf bleaching ranged from 0 to 15% at 7 d after treatment (DAT). In general, most of the bleaching injury rapidly dissipated with slight ($\leq 8\%$) to no corn injury observed at 28 DAT. Control of common cocklebur with mesotrione at 14 DAT ranged from 79 to 98% for all treatments over both years. Applying mesotrione at 140 g/ha, at the early postemergence (EPOST) timing, or in combination with atrazine provided the greatest control of common cocklebur at 14 DAT. Application rate of mesotrione was the only factor that was significant in both years for control of common cocklebur later in the season at 56 DAT. Control of ivyleaf morningglory with mesotrione at 14 DAT ranged from 60 to 90% for all treatments in both years. Control of ivyleaf morningglory at 14 DAT was enhanced by the addition of atrazine to mesotrione. Control of ivyleaf morningglory at 56 DAT was greater with mid-postemergence and late postemergence than with EPOST applications, and was generally enhanced by the addition of atrazine. Yellow nutsedge control with mesotrione was inconsistent, ranging from 40 to 87% at 14 DAT for all treatments over both years. The addition of atrazine to mesotrione increased yellow nutsedge control from 47 to 87% at 14 DAT in 2000. Increasing the rate of mesotrione from 70 to 140 g/ha, as well as the addition of atrazine, improved control of yellow nutsedge at 56 DAT. Corn grain yield was not affected by corn injury or weed control as there were no significant differences in grain yield between herbicide-treated plots and handweeded plots.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 23 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:99902 HCAPLUS Full-text

DOCUMENT NUMBER: 134:233006

TITLE: Mesotrione: a new selective herbicide for use in maize

AUTHOR(S): Mitchell, Glynn; Bartlett, David W.; Fraser, Torquil E. M.; Hawkes, Tim R.; Holt, David C.; Townson, Jane K.; Wichert, Rex A.

CORPORATE SOURCE: Zeneca Agrochemicals, Jealott's Hill International Research Centre, Bracknell, RG42 6ET, UK

SOURCE: Pest Management Science (2001), 57(2), 120-128

CODEN: PMSCF; ISSN: 1526-498X

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Mesotrione is a new herbicide being developed for the selective pre- and post-emergence control of a wide range of broad-leaved and grass weeds in maize (Zea mays). It is a member of the benzoylcyclohexane-1,3-dione family of herbicides, which are chemical derived from a natural phytotoxin obtained from the Californian bottlebrush plant, Callistemon citrinus. The compound acts by competitive inhibition of the enzyme 4-hydroxyphenylpyruvate dioxygenase (HPPD), a component of the biochem. pathway that converts tyrosine to plastoquinone and α -tocopherol. Mesotrione is an extremely potent inhibitor of HPPD from Arabidopsis thaliana, with a K_i value of c 6-18 μ M. It is rapidly taken up by weed species following foliar application, and is distributed within the plants by both acropetal and basipetal movement. Maize is tolerant to mesotrione as a consequence of selective metabolism by the crop plant. Slower uptake of mesotrione, relative to susceptible weed species, may also contribute to its utility as a selective herbicide for use in maize.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 24 OF 30 USPATFULL on STN

ACCESSION NUMBER: 2000:67704 USPATFULL Full-text

TITLE: Method of controlling weeds in transgenic

INVENTOR(S): crops
 Pallett, Ken, Ongar, United Kingdom
 Derose, Richard, Lyons, France
 Pelissier, Bernard, St Didier Au Mont d'Or, France
 Sailland, Alain, Lyons, France
 Vrabel, Thomas Edward, Raleigh, NC, United States
 PATENT ASSIGNEE(S): Rhone-Poulenc Agrochimie, Lyons, France (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6069115		20000530 <--
APPLICATION INFO.:	US 1997-969032		19971112 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Smith, Lynette R. F.		
ASSISTANT EXAMINER:	Haas, Thomas		
LEGAL REPRESENTATIVE:	Connolly Bove Lodge & Hutz LLP		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
LINE COUNT:	710		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a method for the control of weeds at a crop locus, said method comprising the application of an effective amount of:

(a) a glyphosate herbicide which is glyphosate or a derivative thereof; and

(b) at least one HPPD-inhibiting herbicide;

wherein the crop is tolerant to glyphosate and optionally the HPPD-inhibiting herbicide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 25 OF 30 USPATFULL on STN

ACCESSION NUMBER: 1999:67226 USPATFULL Full-text
 TITLE: Stable herbicidal compositions containing metal chelates of herbicidal dione compounds
 INVENTOR(S): Scher, Herbert B., Moraga, CA, United States
 Chen, Jinling, El Cerrito, CA, United States
 PATENT ASSIGNEE(S): Zeneca Limited, United Kingdom (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5912207		19990615 <--
APPLICATION INFO.:	US 1997-792340		19970131 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Clardy, S. Mark		
LEGAL REPRESENTATIVE:	LeCroy, David P.		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1136		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Metal chelates of herbicidal dione compounds of the formula ##STR1## are chemically stable for long periods of time under normal as well as extreme

temperature conditions. Chemically stable liquid herbicidal formulations containing metal chelates of the herbicidal compounds of formula (I) and water, an organic solvent or a liquid co-herbicide and processes for producing chemically stable herbicidal compositions containing such metal chelates are also described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:15820 HCAPLUS Full-text

DOCUMENT NUMBER: 132:133514

TITLE: Technical review of mesotrione, a new maize herbicide

AUTHOR(S): Wichert, R. A.; Townson, J. K.; Bartlett, D. W.; Foxon, G. A.

CORPORATE SOURCE: Western Research Center, Zeneca Ag Products, Richmond, CA, 94804, USA

SOURCE: Brighton Conference--Weeds (1999), (Vol. 1), 105-110

CODEN: BCWEFI

PUBLISHER: British Crop Protection Council

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 1 reference Mesotrione (ZA1296) is an exptl. triketone herbicide being developed for the pre-emergence and postemergence maize herbicide markets. Mesotrione provides control of all the major broadleaf weeds and selected grass weeds, while providing application flexibility, excellent crop tolerance, and residual weed control. Mesotrione inhibits p-hydroxyphenylpyruvate dioxygenase (HPPD). This enzyme is in the biochem. pathway that converts tyrosine to plastoquinone. Weeds are expected to have low potential for development of resistance to mesotrione because it is a competitive inhibitor and mutations for resistance are likely to carry a fitness penalty. Mutagenized Arabidopsis populations have also yielded no mutants resistant to mesotrione. Mesotrione has a favorable environmental and toxicol. profile. Mesotrione is not a carcinogen and there are no detectable residues at harvest. Mesotrione presents negligible risks to mammals, birds and aquatic species.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 27 OF 30 USPATFULL on STN

ACCESSION NUMBER: 1998:42325 USPATFULL Full-text

TITLE: Synergistic herbicidal composition comprising triketones and chloroacetanilides, and method of use thereof

INVENTOR(S): Shribbs, John Martin, Petaluma, CA, United States

PATENT ASSIGNEE(S): Zeneca Limited, London, England (non-U.S. corporation)

	NUMBER	KIND	DATE	
	-----	-----	-----	
PATENT INFORMATION:	US 5741756		19980421	<--
APPLICATION INFO.:	US 1995-504267		19950719	(8)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Clardy, S. Mark			
LEGAL REPRESENTATIVE:	Thomson, Marian T.			
NUMBER OF CLAIMS:	15			
EXEMPLARY CLAIM:	1			
LINE COUNT:	415			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A synergistic herbicidal composition containing (A) a cyclohexanedione compound of formula (I): ##STR1## wherein n is 0 or 1; and (B) a chloroacetanilide compound of the formula (II): ##STR2## wherein R.sup.1 is hydrogen, methyl or ethyl; R.sup.2 is hydrogen or ethyl; R.sup.3 is hydrogen or methyl; and R.sup.4 is methyl, methoxy, methoxymethyl, ethoxy or butoxy. A method of controlling the growth of undesirable vegetation, particularly in crops, using this synergistic composition is also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 28 OF 30 USPATFULL on STN

ACCESSION NUMBER: 96:29524 USPATFULL Full-text
 TITLE: Selective 1,3-cyclohexanedione corn herbicide
 INVENTOR(S): Ensminger, Michael P., Petaluma, CA, United States
 Shribbs, John M., Petaluma, CA, United States
 PATENT ASSIGNEE(S): Zeneca Limited, London, United Kingdom (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5506195		19960409	<--
APPLICATION INFO.:	US 1994-333442		19941101	(8)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Clardy, S. Mark			
LEGAL REPRESENTATIVE:	Thomson, Marian T.			
NUMBER OF CLAIMS:	5			
EXEMPLARY CLAIM:	1			
LINE COUNT:	361			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of selectively controlling undesirable vegetation in corn by applying an herbicidally effective amount of 2-(2'-nitro-4'-methylsulfonylbenzoyl)-1,3-cyclohexanedione to the locus of such vegetation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 29 OF 30 USPATFULL on STN

ACCESSION NUMBER: 92:82408 USPATFULL Full-text
 TITLE: Certain substituted bis(2-benzoyl-3-oxo-cyclohexenyl) thioglycols
 INVENTOR(S): Knudsen, Christopher G., Berkeley, CA, United States
 PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, London, United Kingdom (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5152826		19921006	<--
APPLICATION INFO.:	US 1991-778415		19911016	(7)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Cintins, Marianne M.			
ASSISTANT EXAMINER:	Argo, Margaret			
LEGAL REPRESENTATIVE:	Baker, Edwin H., Bradley, Michael J.			
NUMBER OF CLAIMS:	25			
EXEMPLARY CLAIM:	1			
LINE COUNT:	729			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An herbicide compound of the formula ##STR1## wherein R is halogen, C.sub.1 -C.sub.2 alkyl, C.sub.1 -C.sub.2 alkoxy, nitro; cyano; C.sub.1 -C.sub.2 haloalkyl, or R.sup.a SO.sub.n -- wherein n is 0 or 2 and R.sup.a is C.sub.1 -C.sub.2 alkyl;

R.sup.1 is hydrogen or C.sub.1 -C.sub.4 alkyl;

R.sup.2 is hydrogen or C.sub.1 -C.sub.4 alkyl; or

R.sup.1 and R.sup.2 together are alkylene having 2 to 5 carbon atoms;

R.sup.3 is hydrogen or C.sub.1 -C.sub.4 alkyl;

R.sup.4 is hydrogen or C.sub.1 -C.sub.4 alkyl; or

R.sup.3 and R.sup.4 together are oxo;

R.sup.5 is hydrogen or C.sub.1 -C.sub.4 alkyl;

R.sup.6 is hydrogen or C.sub.1 -C.sub.4 alkyl; or

R.sup.5 and R.sup.6 together are alkylene having 2 to 5 carbon atoms;

R.sup.7 and R.sup.8 independently are (1) hydrogen; (2) halogen; (3) C.sub.1 -C.sub.4 alkyl; (4) C.sub.1 -C.sub.4 alkoxy; (5) trifluoromethoxy; (6) cyano; (7) nitro; (8) C.sub.1 -C.sub.4 haloalkyl; (9) R.sup.b SO.sub.n -- wherein n is the integer 0, 1 or 2; and R.sup.b is (a) C.sub.1 -C.sub.4 alkyl; (b) C.sub.1 -C.sub.4 alkyl substituted with halogen or cyano; (c) phenyl; or (d) benzyl; (10) --NR.sup.c R.sup.d wherein R.sup.c and R.sup.d independently are hydrogen or C.sub.1 -C.sub.4 alkyl; (11) R.sup.e C(O) -- wherein R.sup.e is C.sub.1 -C.sub.4 alkyl or C.sub.1 -C.sub.4 alkoxy; (12) SO.sub.2 NR.sup.c R.sup.d wherein R.sup.c and R.sup.d are as defined; (13) -N(R.sup.c)C(O)R.sup.d wherein R.sup.c and R.sup.d are as defined; or (14) -CH.sub.2 CH.sub.2 OCH.sub.3 or --CH.sub.2 CH.sub.2 OC.sub.2 H.sub.5 ; with the proviso that R.sup.7 is not at the 6-position; and

R.sup.9 is C.sub.2 -C.sub.6 alkylene.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 30 OF 30 USPATFULL ON STN

ACCESSION NUMBER:	88:68834 USPATFULL <u>Full-text</u>
TITLE:	Certain 2-(substituted benzoyl)-1,3-cyclohexanediones and their use as herbicides
INVENTOR(S):	Michaely, William J., El Cerrito, CA, United States Kraatz, Gary W., San Jose, CA, United States
PATENT ASSIGNEE(S):	Stauffer Chemical Company, Westport, CT, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4780127		19881025 <--
APPLICATION INFO.:	US 1986-880370		19860630 (6)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1985-772593, filed on 5 Sep 1985, now abandoned which is a continuation-in-part of Ser. No. US 1984-634408, filed on 31 Jul 1984, now abandoned which is a continuation-in-part of Ser. No. US 1984-587331, filed on 7 Mar 1984, now abandoned which is a continuation-in-part of Ser. No. US 1983-532869, filed on 16 Sep 1983, now abandoned which is a continuation-in-part of Ser. No. US 1983-464251, filed on 9 Feb 1983, now abandoned which is a continuation-in-part of Ser. No. US 1982-361658, filed on 25 Mar 1982, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Lone, Werren B.		
ASSISTANT EXAMINER:	Clarke, Vera C.		
LEGAL REPRESENTATIVE:	Baker, Edwin H.		
NUMBER OF CLAIMS:	64		
EXEMPLARY CLAIM:	1,20		
LINE COUNT:	4197		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	Compounds of the formula ##STR1## wherein R is halogen, C.sub.1 -C.sub.4 alkoxy, C.sub.1 -C.sub.4 alkyl, C.sub.1 -C.sub.4 haloalkyl, cyano, nitro, S(O).sub.n R wherein R is C.sub.1 -C.sub.4 alkyl and n is the integer 0, 1 or 2; and R.sup.2 through R.sup.8 are hydrogen or certain substituents, their salts, herbicidal compositions containing the compound or salts and the herbicidal use thereof.		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SEARCH IN AGRICOLA, BIOSIS, CABA, CROPB, CROPU, ESBIOBASE, GENBANK, IFIPAT,
NTIS, SCISEARCH

=> d que stat l18

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L8      1 SEA FILE=REGISTRY ABB=ON 104206-82-8/RN
L9      212 SEA FILE=HCAPLUS ABB=ON L8
L10     185 SEA FILE=HCAPLUS ABB=ON L9 AND ?HERBICID?
L11     77 SEA FILE=HCAPLUS ABB=ON L10 AND ?WEED?
L13     9 SEA FILE=HCAPLUS ABB=ON L11 AND ?APPL?(4A)?WEED?
L14     7 SEA FILE=HCAPLUS ABB=ON L13 AND (PRD<20041213 OR PD<20041213)
L17     5 SEA L14
L18     5 DUP REMOV L17 (0 DUPLICATES REMOVED)
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=> d ibib abs l18 1-5

L18 ANSWER 1 OF 5 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:47721 BIOSIS [Full-text](#)
DOCUMENT NUMBER: PREV200500048548
TITLE: Photosynthetic and growth responses of Zea mays L and four
weed species following post-emergence treatments
with mesotrione and atrazine.
AUTHOR(S): Creech, J. Earl; Monaco, Thomas A. [Reprint Author]; Evans,
John O.
CORPORATE SOURCE: USDA ARS Forage and Range Res Lab, Utah State Univ, Logan,
UT, 84322, USA
tmonaco@cc.usu.edu
SOURCE: Pest Management Science, (November 2004) Vol. 60,
No. 11, pp. 1079-1084. print.
ISSN: 1526-498X (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Jan 2005
Last Updated on STN: 26 Jan 2005

AB We compared photosynthesis and growth of Zea mays L (corn) and four weed
species, *Setaria viridis* (L) Beauv (green foxtail), *Echinochloa crus-galli* (L)
Beauv (barnyardgrass), *Abutilon theophrasti* Medic (velvetleaf), and *Amaranthus*
retroflexus L (redroot pigweed), following foliar applications with atrazine,
mesotrione, or a combination of atrazine and mesotrione in two greenhouse
experiments. Plant responses to the three herbicide treatments were compared
with responses of untreated plants (control). Photosynthesis on day 14 and
dry mass of Z mays was not reduced by any of the herbicide treatments.
Photosynthesis and dry mass of E crus-galli, A retroflexus and A theophrasti
were significantly reduced by mesotrione and atrazine alone and in
combination. Photosynthesis on day 14 and dry mass of large S viridis plants
were not suppressed by either herbicide applied alone. The mesotrione plus
atrazine treatment was the most effective treatment for grass weed control
because plants did not regain photosynthetic capacity and had significantly
lower dry mass. Shoot dry mass of broadleaf weeds was significantly reduced
by all three herbicide treatments, except for A retroflexus treated with
mesotrione alone. Copyright 2004 Society of Chemical Industry.

L18 ANSWER 2 OF 5 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:364986 BIOSIS [Full-text](#)
DOCUMENT NUMBER: PREV200300364986
TITLE: Mesotrione, acetochlor, and atrazine for weed
management in corn (Zea mays).
AUTHOR(S): Armel, Gregory R.; Wilson, Henry P. [Reprint Author];

- CORPORATE SOURCE: Richardson, Robert J.; Hines, Thomas E.
Eastern Shore Agricultural Research and Extension Center,
Virginia Tech, Painter, VA, 23420, USA
hwhilson@vt.edu
- SOURCE: Weed Technology, (April-June 2003) Vol. 17, No. 2, pp. 284-290. print.
CODEN: WETEE9. ISSN: 0890-037X.
- DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Aug 2003
Last Updated on STN: 6 Aug 2003
- AB Field studies were conducted in 1999, 2000, and 2001 to investigate weed control and crop safety with preemergence (PRE) and postemergence (POST) applications of mesotrione alone and in tank mixtures with acetochlor and atrazine. Corn injury was less than 4% with all mesotrione treatments in 1999 and 2001, but it was 8 to 20% in 2000, when rainfall was 3.1 cm 7 d after PRE applications. Mesotrione PRE at 0.16 and 0.24 kg ai/ha did not adequately control most broadleaf weeds or giant foxtail. Tank mixtures of mesotrione plus acetochlor controlled smooth pigweed and giant foxtail but did not adequately control common ragweed, common lambsquarters, or morningglory species. Control by tank mixtures of mesotrione plus atrazine at 0.56 kg ai/ha was frequently low and varied with rainfall after PRE applications. All weed species were controlled 80% or more by mesotrione plus acetochlor PRE or atrazine plus acetochlor PRE followed by mesotrione POST at 0.11 kg/ha.
- L18 ANSWER 3 OF 5 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:100686 BIOSIS Full-text
DOCUMENT NUMBER: PREV200600110923
TITLE: Synergy of mesotrione, S-metolachlor and terbuthylazine in weed control strategies in maize.
Original title: Synergie von mesotrione, S-metolachlor und terbuthylazin in der bekampfungstrategie von maisunkrautern.
- AUTHOR(S): Schulte, M. [Reprint Author]; Ruegg, W. T.; Sutton, P. B.
CORPORATE SOURCE: Syngenta Agro GmbH, Technol Pk 1-5, D-63477 Maintal, Germany
martin.schulte@syngenta.com
- SOURCE: Zeitschrift fuer Pflanzenkrankheiten und Pflanzenschutz, (2002) No. Sp. Iss. 18, pp. 785-793.
CODEN: ZPFFAA. ISSN: 0340-8159.
- DOCUMENT TYPE: Article
LANGUAGE: German
ENTRY DATE: Entered STN: 8 Feb 2006
Last Updated on STN: 8 Feb 2006
- AB Chemical weed control in maize under practical conditions is mostly done by means of ready-formulated or tankmixtures of herbicides. For mesotrione and terbuthylazine, synergistic effects for control of broad-leaved and grass weeds are shown in field results from the 2000 and 2001 season. Calculation according to the model Of COLBY (1967), applied to greenhouse results at sublethal doses demonstrates that a true synergism of two active ingredients, each performing by a different mode of action, is involved. As enhanced uptake and reduced metabolism can be excluded, an explanation for this synergism is discussed based on the different mode of action of the ingredients. Mesotrione after post-emergent application offers predominantly foliar activity, terbuthylazine acts via leaf and soil. The residual activity of such a mixture is mainly due to terbuthylazine, which is active mostly on broad-leaved species. To provide residual activity through the required "critical period" for yield in maize, and to include control of late emerging grass weeds, the residual partner S-metolachlor can be added. The reliable

duration of activity of a combination of terbutylazine and S-metolachlor is shown under greenhouse conditions. In combination with the predominantly foliar-active mesotrione it contributes significantly to a consistent broad-spectrum control of all important annual broad-leaved weeds and grasses in maize.

- L18 ANSWER 4 OF 5 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
 ACCESSION NUMBER: 2001:181384 BIOSIS [Full-text](#)
 DOCUMENT NUMBER: PREV200100181384
 TITLE: Mesotrione: a new selective herbicide for use in maize.
 AUTHOR(S): Mitchell, Glynn [Reprint author]; Bartlett, David W.; Fraser, Torquil E. M.; Hawkes, Tim R.; Holt, David C.; Townson, Jane K.; Wichert, Rex A.
 CORPORATE SOURCE: Zeneca Agrochemicals, Jealott's Hill International Research Centre, Bracknell, Berkshire, RG42 6ET, UK
 SOURCE: Pest Management Science, (February, 2001) Vol. 57, No. 2, pp. 120-128. print.
 ISSN: 1526-498X.
 DOCUMENT TYPE: Article
 LANGUAGE: English
 ENTRY DATE: Entered STN: 11 Apr 2001
 Last Updated on STN: 18 Feb 2002
- AB Mesotrione is a new herbicide being developed for the selective pre- and post-emergence control of a wide range of broad-leaved and grass weeds in maize (*Zea mays*). It is a member of the benzoylcyclohexane-1,3-dione family of herbicides, which are chemically derived from a natural phytotoxin obtained from the Californian bottlebrush plant, *Callistemon citrinus*. The compound acts by competitive inhibition of the enzyme 4-hydroxyphenylpyruvate dioxygenase (HPPD), a component of the biochemical pathway that converts tyrosine to plastoquinone and alpha-tocopherol. Mesotrione is an extremely potent inhibitor of HPPD from *Arabidopsis thaliana*, with a K_i value of c 6-18 pM. It is rapidly taken up by weed species following foliar application, and is distributed within the plants by both acropetal and basipetal movement. Maize is tolerant to mesotrione as a consequence of selective metabolism by the crop plant. Slower uptake of mesotrione, relative to susceptible weed species, may also contribute to its utility as a selective herbicide for use in maize.
- L18 ANSWER 5 OF 5 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
 ACCESSION NUMBER: 2006:100554 BIOSIS [Full-text](#)
 DOCUMENT NUMBER: PREV200600111042
 TITLE: ZA1296 - a novel selective maize herbicide.
 Original Title: ZA1296 - ein neues selektives maisherbizid.
 AUTHOR(S): Drexler, G. [Reprint Author]; Brune, R. A.
 CORPORATE SOURCE: Zeneca Agro, Emil von Behring Str 2, D-60439 Frankfurt, Germany
 Georg.Drexler@ageurope.zeneca.com
 SOURCE: Zeitschrift fuer Pflanzenkrankheiten und Pflanzenschutz, (2006) No. Sp. Iss. 17, pp. 577-581.
 CODEN: ZPFPAA. ISSN: 0340-8159.
 DOCUMENT TYPE: Article
 LANGUAGE: German
 ENTRY DATE: Entered STN: 8 Feb 2006
 Last Updated on STN: 8 Feb 2006
- AB ZA1296 (common name: Mesotrione) is a new herbicidal active ingredient for selective use in maize. ZA1296 is a broad spectrum 2(nd) generation triketon. It shows foliar and residual activity and is therefore flexible in terms of

10/517,873

application timing. Chemical and physical properties, toxicology and ecotoxicology, results of field trials for weed control straight, as well as selectivity results are presented below.

SEARCH HISTORY

=> d his ful

(FILE 'HOME' ENTERED AT 17:32:09 ON 26 JAN 2007)

FILE 'HCAPLUS' ENTERED AT 17:32:18 ON 26 JAN 2007

E STOCK DAVID/AU
 L1 20 SEA ABB=ON "STOCK DAVID"/AU
 E PIPER CATHERINE/AU
 L2 5 SEA ABB=ON "PIPER CATHERINE JULIA"/AU
 E HALL GAVIN/AU
 L3 5 SEA ABB=ON ("HALL GAVIN J"/AU OR "HALL GAVIN JOHN"/AU OR
 "HALL GAVIN M"/AU)
 E SUTTON PETER BERNARD/AU
 L4 8 SEA ABB=ON ("SUTTON PETER B"/AU OR "SUTTON PETER BERNARD"/AU)
 L5 2 SEA ABB=ON L1 AND L2 AND L3 AND L4
 D TI 1-2
 SELECT RN L5 1-1

FILE 'REGISTRY' ENTERED AT 17:33:55 ON 26 JAN 2007

L6 11 SEA ABB=ON (104206-80-6/BI OR 104206-82-8/BI OR 126-63-6/BI
 OR 126-73-8/BI OR 126070-60-8/BI OR 14265-44-2/BI OR 145665-36-
 7/BI OR 15477-76-6/BI OR 634187-29-4/BI OR 78-42-2/BI OR
 99105-77-8/BI)

FILE 'HCAPLUS' ENTERED AT 17:34:00 ON 26 JAN 2007

L7 2 SEA ABB=ON L5 AND L6

FILE 'REGISTRY' ENTERED AT 17:37:54 ON 26 JAN 2007

L8 1 SEA ABB=ON 104206-82-8/RN

FILE 'HCAPLUS' ENTERED AT 17:38:09 ON 26 JAN 2007

L9 212 SEA ABB=ON L8
 L10 185 SEA ABB=ON L9 AND ?HERBICID?
 L11 77 SEA ABB=ON L10 AND ?WEED?
 L12 1 SEA ABB=ON L11 AND ?PROCESS?
 L13 9 SEA ABB=ON L11 AND ?APPL?(4A)?WEED?
 L14 7 SEA ABB=ON L13 AND (PRD<20041213 OR PD<20041213)

FILE 'USPATFULL' ENTERED AT 17:42:10 ON 26 JAN 2007

L15 23 SEA ABB=ON L13 AND (PRD<20041213 OR PD<20041213)

FILE 'HCAPLUS, USPATFULL' ENTERED AT 17:42:24 ON 26 JAN 2007

L16 30 DUP REMOV L14 L15 (0 DUPLICATES REMOVED)

FILE 'AGRICOLA, BIOSIS, CABA, CROPB, CROPU, ESBIODBASE, GENBANK, IFIPAT,
 NTIS, SCISEARCH' ENTERED AT 17:42:55 ON 26 JAN 2007

L17 5 SEA ABB=ON L14
 L18 5 DUP REMOV L17 (0 DUPLICATES REMOVED)

FILE HOME

FILE HCAPLUS

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FILE COVERS 1907 - 26 Jan 2007 VOL 146 ISS 6
FILE LAST UPDATED: 25 Jan 2007 (20070125/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 25 JAN 2007 HIGHEST RN 918475-45-3
DICTIONARY FILE UPDATES: 25 JAN 2007 HIGHEST RN 918475-45-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 25 Jan 2007 (20070125/PD)
FILE LAST UPDATED: 25 Jan 2007 (20070125/ED)
HIGHEST GRANTED PATENT NUMBER: US2007015693
HIGHEST APPLICATION PUBLICATION NUMBER: US2007022507
CA INDEXING IS CURRENT THROUGH 25 Jan 2007 (20070125/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 25 Jan 2007 (20070125/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2006
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2006

FILE AGRICOLA

FILE COVERS 1970 TO 5 Jan 2007 (20070105/ED)

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FILE BIOSIS

FILE COVERS 1969 TO DATE.

10/517,873

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 24 January 2007 (20070124/ED)

FILE CABA

FILE COVERS 1973 TO 8 Jan 2007 (20070108/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

The CABA file was reloaded 7 December 2003. Enter HELP RLOAD for details.

FILE CROPB

FILE LAST LOADED: 11 NOV 94 <941111/UP>

FILE CROPU

FILE LAST UPDATED: 5 JAN 2004 <20040105/UP>

FILE COVERS 1985 TO 2003

<<< CROPU IS A STATIC FILE WITH NO UPDATES >>>

FILE ESBIODASE

FILE LAST UPDATED: 23 JAN 2007 <20070123/UP>

FILE COVERS 1994 TO DATE.

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN
/CC, /ORGN, AND /ST <<<

FILE GENBANK

GENBANK (R) IS A REGISTERED TRADEMARK OF THE U.S. DEPARTMENT
OF HEALTH AND HUMAN SERVICES.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE IFIPAT

FILE COVERS 1950 TO PATENT PUBLICATION DATE: 16 Jan 2007 (20070116/PD)

FILE LAST UPDATED: 17 Jan 2007 (20070117/ED)

HIGHEST GRANTED PATENT NUMBER: US7165269

HIGHEST APPLICATION PUBLICATION NUMBER: US2007011793

UNITERM INDEXING IS AVAILABLE IN THE IFIUDB FILE

UNITERM INDEXING LAST UPDATED: 4 Jan 2007 (20070104/UP)

INDEXING CURRENT THROUGH PAT PUB DATE: 30 Dec 2004 (20041230/PD)

IFIPAT reloaded on 9/22/05. Enter HELP RLOAD for details.

FILE NTIS

FILE LAST UPDATED: 22 JAN 2007 <20070122/UP>

FILE COVERS 1964 TO DATE.

<<< SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN
THE BASIC INDEX (/BI) >>>

FILE SCISEARCH

FILE COVERS 1974 TO 25 Jan 2007 (20070125/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.